

What is claimed is:

1. A communication network-adapted protocol conversion connector adapted for attaching to a communication network laid in buildings such as office building, dwelling house and the like, said connector comprising:

a primary connecting portion to be connected to said communication network laid indoors,

a secondary connecting portion to be connected to a network-adapted appliance,

a protocol conversion interface to convert the protocol for control signals to be sent and received between said communication network and said network-adapted appliance, and

a feeder connecting portion to feed electric power to said network-adapted appliance to be connected to said secondary connecting portion.

2. The connector of claim 1, wherein said communication network comprises an information wire laid indoors and connected to a communication server, wherein said primary connecting portion is connected to said information wire while said secondary connecting portion is connected to said network-adapted appliance, and wherein said protocol conversion interface is set an individual communication address and converts the protocol for control signals to make it possible to send and receive said control signals between said network-adapted appliance connected to said secondary connecting portion and said communication server connected to said information wire, further wherein said feeder connecting portion supplies said network-adapted appliance with electric power from a power line laid indoors.

3. The connector of claim 1, further comprising a control information/ power sending and receiving circuit, wherein said communication network comprises a power line laid indoors and connected to a communication server, for sending power line carrier signals which are superimposed with control signals and power source, wherein said primary connecting portion is connected to said power line while said secondary connecting portion is connected to said network-adapted appliance, and wherein said control information/power sending and receiving circuit separates control signals and power source from said power line carrier signals, sent in through said power line and sends back the control signals, superimposed with said power line carrier signals, sent out from said network-adapted appliance through said secondary connecting portion, further wherein said protocol conversion interface is set an individual communication address, converts the protocol for control signals to make it possible to send and receive the control signals between said network-adapted appliance connected to said secondary connecting portion and said communication server connected to said power line and said feeder connecting portion supplies said network-adapted appliance with electric power separated by said control information/power sending and receiving circuit.

4. The connector of claim 1, wherein said communication network comprises a wireless communication network for sending and receiving radio signals superimposed control signals therewith between a wireless communication server installed indoors, wherein said primary connecting portion constitutes a wireless signal processing unit for sending and receiving radio signals superimposed the control signals therewith between said

wireless communication server while said secondary connecting portion is connected to said network-adapted appliance, and wherein said protocol conversion interface is set an individual communication address and converts the protocol for control signals to make it possible to send and receive the control signals between said network-adapted appliance connected to said secondary connecting portion and said wireless communication server, further wherein said feeder connecting portion supplies said network-adapted appliance with electric power from a power line laid indoors.

5. The connector of claim 2 or 3, further comprising a power cut-off circuit which is controlled by the control signals sent in through said information wire or said power line or by the control signals sent in from said network-adapted appliance connected to said secondary connecting portion.

6. The connector of claim 4, further comprising a power cut-off circuit which is controlled by the control signals sent in through said wireless communication server or by control signals sent in from said network-adapted appliance connected to said secondary connecting portion.

7. The connector of any one of claim 1 to 3, wherein said protocol conversion connector has a position information storing memory in which positional information contained in the control signals, corresponding to said individual communication address is rewritably saved, said control signals being received at said primary connecting portion through said network or received at said secondary connecting portion from said

network-adapted appliance.

8. The connector of claim 4, wherein said protocol conversion connector has a position information storing memory in which positional information contained in the control signals, corresponding to said individual communication address is rewritably saved, said control signals being received at said primary connecting portion through said wireless communication server or received at said secondary connecting portion from said network-adapted appliance.

9. The connector of one of claim 1 to 4, further comprising a power source conversion circuit which converts the voltage and/or current to be supplied to said network-adapted appliance from said feeder connecting portion.

10. An indoor communication network system comprising a communication network to which a communication server and plural network-adapted appliances, each set an individual communication address, are connected and laid in buildings such as office building, dwelling house, or the like, wherein each of said network-adapted appliance comprises a device memory for temporarily storing user setting information registered individually, wherein said communication server detects the activation of power to network-adapted appliances connected to said communication network, and is provided with a user setting information storing memory for registering and storing user setting information temporarily saved on said memories of said network-adapted appliances, whereby said communication server, when user setting information is written or rewritten on said

memory of any one of said network-adapted appliances, receives user setting information from the corresponding network-adapted appliance and stores said information on said table, and further said communication server detects the activation of power to any one of the network-adapted appliances, said communication server reads out the corresponding user setting information registered and stored for said corresponding network-adapted appliance from said user setting information memory to enable said network-adapted appliance to write said user setting information on its device memory.

11. The system of claim 10, wherein said communication network comprises an information wire to which a protocol conversion connectors is attached at a suitable place, whereby when said communication server detects the activation of power to any one of the network-adapted appliances, said communication server reads out and sends out to said information wire the corresponding user setting information registered and stored for the corresponding network-adapted appliance from said user setting information memory to enable said network-adapted appliance to write said user setting information on its device memory.

12. The system of claim 10, wherein said communication network comprises a power line to which a communication server installed indoors is connected and control signals is transmitted together with electric power, whereby when said communication server detects the activation of power to any one of the network-adapted appliances, said communication server reads out and sends out to said power line the corresponding user setting

information registered and stored for the corresponding network-adapted appliance from said user setting information memory to enable said network-adapted appliance to write said user setting information on its device memory.

13. The system of claim 10, wherein said communication network comprises a wireless communication system in which radio signals are sent and received between a wireless communication server installed indoors and wireless signal processing units provided at a protocol conversion connector for controlling said network-adapted appliances, whereby when said wireless communication server detects the activation of power to any one of the network-adapted appliances, said wireless communication server reads out the corresponding user setting information registered and stored for the corresponding network-adapted appliance from said user setting information memory and converts it into radio signals then sends out it to said wireless communication system to enable said network-adapted appliance to write said user setting information on its device memory.

14. The system of claim 11, wherein said information wire is provided at a stable place with a protocol conversion connector, said protocol conversion connector comprising a primary connecting portion to be connected to said communication network laid indoors, a secondary connecting portion to be connected to a network-adapted appliance, a protocol conversion interface to convert the protocol for control signals sent in and received between said communication network and said network-adapted appliances, and a feeder connecting portion to feed electric power laid indoors to said network-adapted appliance to be connected

to said secondary connecting portion.

15. The system of claim 12, wherein said power line is provided at a stable place with a protocol conversion connector for separating the control signals and power source from said power line carrier signals, said protocol conversion connector comprising a primary connecting portion to be connected to said communication network laid indoors, a secondary connecting portion to be connected to a network-adapted appliance, a protocol conversion interface to convert the protocol for control signals sent and received between a communication server connected to said power line or a communication network laid outdoors and said network-adapted appliance, and a feeder connecting portion to feed electric power to said network-adapted appliance to be connected to said secondary connecting portion.

16. The system of claim 13, wherein said communication network comprises wireless network system in which wireless control signals are sent and received between said wireless communication server installed indoors and a wireless protocol conversion connector, said wireless protocol conversion connector comprising a radio signal processing unit for sending and receiving radio signals to and from said wireless communication server, a secondary connecting portion to be connected to a network-adapted appliance, a protocol conversion interface to convert the protocol for control signals sent and received between said wireless communication server and said network-adapted appliances, and a feeder connecting portion, connected to said power line, to feed power to said network-adapted appliance to be connected to said secondary connecting portion.

17. The system of claim 11 or 12, wherein said protocol conversion connector further comprises a power cut-off circuit which is controlled by the control signals received at said primary connecting portion or the control signals sent out from said network-adapted appliance connected to said secondary connecting portion.

18. The system of claim 13, wherein said wireless protocol conversion connector further comprises a power cut-off circuit which is controlled by the control signals received at said wireless signal processing unit or the control signals sent out from said network-adapted appliance connected to said secondary connecting portion.

19. The system of claim 11 or 12, wherein said user setting information temporally saved in said device memory provided at said network-adapted appliance contains setting information for schedule control of said network-adapted appliance.

20. The system of claim 13, wherein said user setting information temporally saved in said device memory provided at said network-adapted appliance contains setting information for schedule control of said network-adapted appliance.